

# FF2HH-6533C-R5



12-Port Sector/multibeam antenna, 4x 617–894 MHz 65° HPBW and 8x 1695–2360 MHz 4x 33° HPBW, 5x RET

- All Internal RET actuators are connected in “Cascaded SRET” configuration
- Enhances network capacity through six sectors on high band while maintaining low band coverage layer through three sectors with only three antenna faces
- Each High Band antenna down tilt can be independently adjusted for greater flexibility in network optimization

## General Specifications

<b>Antenna Type</b>	Multibeam
<b>Band</b>	Multiband
<b>Color</b>	Light Gray (RAL 7035)
<b>Grounding Type</b>	RF connector inner conductor and body grounded to reflector and mounting bracket
<b>Performance Note</b>	Outdoor usage
<b>Radome Material</b>	Fiberglass, UV resistant
<b>Radiator Material</b>	Aluminum   Low loss circuit board
<b>Reflector Material</b>	Aluminum
<b>RF Connector Interface</b>	4.3-10 Female
<b>RF Connector Location</b>	Bottom
<b>RF Connector Quantity, high band</b>	8
<b>RF Connector Quantity, low band</b>	4
<b>RF Connector Quantity, total</b>	12

## Remote Electrical Tilt (RET) Information


<b>RET Hardware</b>	CommRET v2
<b>RET Interface</b>	8-pin DIN Female   8-pin DIN Male
<b>RET Interface, quantity</b>	1 female   1 male
<b>Input Voltage</b>	10–30 Vdc
<b>Internal RET</b>	High band (4)   Low band (1)
<b>Power Consumption, active state, maximum</b>	8 W
<b>Power Consumption, idle state, maximum</b>	1 W
<b>Protocol</b>	3GPP/AISG 2.0 (Single RET)

# FF2HH-6533C-R5

## Dimensions

<b>Width</b>	640 mm   25.197 in
<b>Depth</b>	235 mm   9.252 in
<b>Length</b>	2438 mm   95.984 in
<b>Net Weight, antenna only</b>	64.5 kg   142.198 lb

## Array Layout



Array	Freq (MHz)	Conns	RET (SRET)	AISG RET UID
R1	617-894	1-2	1	CPxxxxxxxxxxxxxxxxR1
R2	617-894	3-4		
Y1	1695-2360	5-6	2	CPxxxxxxxxxxxxxxxxY1
Y2	1695-2360	7-8	3	CPxxxxxxxxxxxxxxxxY2
Y3	1695-2360	9-10	4	CPxxxxxxxxxxxxxxxxY3
Y4	1695-2360	11-12	5	CPxxxxxxxxxxxxxxxxY4

(Sizes of colored boxes are not true depictions of array sizes)

## Port Configuration



## Electrical Specifications

<b>Impedance</b>	50 ohm
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# FF2HH-6533C-R5

<b>Operating Frequency Band</b>	1695 – 2360 MHz   617 – 894 MHz
<b>Polarization</b>	±45°
<b>Total Input Power, maximum</b>	1,000 W @ 50 °C

## Electrical Specifications

Frequency Band, MHz	617–698	698–894	1695–1880	1850–1990	1920–2180	2300–2360
<b>Gain, dBi</b>	15.8	16.1	18.9	19.6	20	20.1
<b>Beam Centers, Horizontal, degrees</b>			±27	±27	±27	±27
<b>Beamwidth, Horizontal, degrees</b>	68	65	37	36	34	30
<b>Beamwidth, Vertical, degrees</b>	10.6	8.9	5.2	4.9	4.6	4.2
<b>Beam Tilt, degrees</b>	2–12	2–12	2–10	2–10	2–10	2–10
<b>USLS (First Lobe), dB</b>	17	17	17	19	19	17
<b>Front-to-Back Ratio at 180°, dB</b>	29	32	34	37	36	35
<b>Isolation, Cross Polarization, dB</b>	25	25	25	25	25	25
<b>Isolation, Inter-band, dB</b>	25	25	25	25	25	25
<b>Isolation, Beam to Beam, dB</b>			17	17	17	17
<b>VSWR   Return loss, dB</b>	1.5 14.0	1.5 14.0	1.5 14.0	1.5 14.0	1.5 14.0	1.5 14.0
<b>PIM, 3rd Order, 2 x 20 W, dBc</b>	-150	-153	-153	-153	-153	-153
<b>Input Power per Port at 50°C, maximum, watts</b>	250	250	200	200	200	200

## Electrical Specifications, BASTA

Frequency Band, MHz	617–698	698–894	1695–1880	1850–1990	1920–2180	2300–2360
<b>Gain by all Beam Tilts, average, dBi</b>	15.5	15.7	18.3	19.2	19.6	19.6
<b>Gain by all Beam Tilts Tolerance, dB</b>	±0.5	±0.5	±0.7	±0.5	±0.5	±1.1
<b>Gain by Beam Tilt, average, dBi</b>	2° 15.6 7° 15.6 12° 15.3	2° 15.8 7° 15.9 12° 15.6	2° 18.3 6° 18.4 10° 18.2	2° 19.1 6° 19.3 10° 19.2	2° 19.5 6° 19.7 10° 19.5	2° 19.6 6° 19.7 10° 19.5
<b>Beamwidth, Horizontal Tolerance, degrees</b>	±3.7	±5.4	±2.4	±2.1	±2.6	±2
<b>Beamwidth, Vertical Tolerance, degrees</b>	±0.7	±1	±0.3	±0.2	±0.3	±0.3
<b>USLS, beampeak to 20° above</b>	16	16	14	15	15	13

# FF2HH-6533C-R5

## beampeak, dB

<b>Front-to-Back Total Power at 180° ± 30°, dB</b>	23	23	29	30	29	29
<b>CPR at Boresight, dB</b>	14	15	15	18	19	19
<b>CPR at Sector, dB</b>	9	9				
<b>CPR at 10 dB Horizontal Beamwidth, dB</b>			10	12	12	10

## Mechanical Specifications

<b>Wind Loading @ Velocity, frontal</b>	1,055.0 N @ 150 km/h (237.2 lbf @ 150 km/h)
<b>Wind Loading @ Velocity, lateral</b>	355.0 N @ 150 km/h (79.8 lbf @ 150 km/h)
<b>Wind Loading @ Velocity, maximum</b>	1,433.0 N @ 150 km/h (322.2 lbf @ 150 km/h)
<b>Wind Loading @ Velocity, rear</b>	1,086.0 N @ 150 km/h (244.1 lbf @ 150 km/h)
<b>Wind Speed, maximum</b>	241 km/h (150 mph)

## Packaging and Weights

<b>Width, packed</b>	752 mm   29.606 in
<b>Depth, packed</b>	382 mm   15.039 in
<b>Length, packed</b>	2590 mm   101.969 in
<b>Weight, gross</b>	87.5 kg   192.904 lb

## Regulatory Compliance/Certifications

Agency	Classification
ISO 9001:2015	Designed, manufactured and/or distributed under this quality management system



## Included Products

BSAMNT-4	-	Wide Profile Antenna Downtilt Mounting Kit for 2.4 - 4.5 in (60 - 115 mm) OD round members. Kit contains one scissor top bracket set and one bottom bracket set.
BSAMNT-M4	-	Middle Downtilt Mounting Kit for Long Antennas for 2.4 - 4.5 in (60 - 115 mm) OD round members. Kit contains one scissor bracket set.

## \* Footnotes

<b>Performance Note</b>	Severe environmental conditions may degrade optimum performance
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# BSAMNT-4



Wide Profile Antenna Downtilt Mounting Kit for 2.4 - 4.5 in (60 - 115 mm) OD round members. Kit contains one scissor top bracket set and one bottom bracket set.

## Product Classification

**Product Type** Downtilt mounting kit

## General Specifications

**Application** Outdoor

**Color** Silver

## Dimensions

**Compatible Diameter, maximum** 115 mm | 4.528 in

**Compatible Diameter, minimum** 60 mm | 2.362 in

**Weight, net** 6.5 kg | 14.33 lb

## Material Specifications

**Material Type** Galvanized steel

## Packaging and Weights

**Included** Brackets | Hardware

**Packaging quantity** 1

## Regulatory Compliance/Certifications

Agency	Classification
CHINA-ROHS	Below maximum concentration value
ISO 9001:2015	Designed, manufactured and/or distributed under this quality management system
REACH-SVHC	Compliant as per SVHC revision on <a href="http://www.commscope.com/ProductCompliance">www.commscope.com/ProductCompliance</a>
ROHS	Compliant
UK-ROHS	Compliant



# BSAMNT-M4



Middle Downtilt Mounting Kit for Long Antennas for 2.4 - 4.5 in (60 - 115 mm) OD round members. Kit contains one scissor bracket set.

## Product Classification

**Product Type** Downtilt mounting kit

## General Specifications

**Application** Outdoor

**Color** Silver

## Dimensions

**Compatible Diameter, maximum** 115 mm | 4.528 in

**Compatible Diameter, minimum** 60 mm | 2.362 in

**Weight, net** 4.6 kg | 10.141 lb

## Material Specifications

**Material Type** Galvanized steel

## Packaging and Weights

**Included** Brackets | Hardware

**Packaging quantity** 1

## Regulatory Compliance/Certifications

Agency	Classification
CHINA-ROHS	Below maximum concentration value
ISO 9001:2015	Designed, manufactured and/or distributed under this quality management system
REACH-SVHC	Compliant as per SVHC revision on <a href="http://www.commscope.com/ProductCompliance">www.commscope.com/ProductCompliance</a>
ROHS	Compliant
UK-ROHS	Compliant

